

This listing of the claims replaces any and all prior versions and listings of claims in the application:



LISTING OF THE CLAIMS

1. (Original) A process comprising:
lithiating a compound of the formula R^1-H , where R^1 represents an aryl group substituted by an alkoxy, aryloxy, dialkylamino, dialkylaminoalkyl, dialkylamido, alkoxyalkoxy, alkylthio, alkylsulfonyl, dialkylamidofulfonyl, alkylsulfonate or lithiated hydroxyl group;
with a compound of the formula $Q-Li$, where Q represents an alkyl, cycloalkyl, aralkyl or aryl group;
in a solvent comprising an ether compound of the formula E^1-O-E^2 , where each of E^1 and E^2 independently represent a substituted alkyl group or a substituted aryl group, and having a boiling point of at least $40^\circ C$ at atmospheric pressure.
2. (Original) The process of claim 1 in which R^1 represents a phenyl group substituted by an alkoxy or aryloxy group.
3. (Original) The process of claim 1 in which E^1 represents a C_{1-12} alkyl group or a phenyl group substituted by a polar group at the 2-position and E^2 represents a C_{1-12} alkyl group.
4. (Original) The process of claim 1 in which E^1 represents a C_{1-4} alkyl group and E^2 represents a branched C_{3-6} alkyl group.
5. (Original) A process for the preparation of a compound of the formula R^1_3P , where R^1 represents an aryl group substituted by an alkoxy, aryloxy, dialkylamino, dialkylaminoalkyl, dialkylamido, alkoxyalkoxy, alkylthio, alkylsulfonyl, dialkylamidofulfonyl, alkylsulfonate or lithiated hydroxyl group, comprising:
lithiating a compound of the formula R^1-H ;
with a compound of the formula $Q-Li$, where Q represents an alkyl, cycloalkyl, aralkyl or aryl group;
in a solvent comprising an ether compound of the formula E^1-O-E^2 , where each of E^1 and E^2 independently represent a substituted alkyl group or a substituted aryl group, and having a boiling point of at least $40^\circ C$ at atmospheric pressure; and

reacting the resultant compound $R^1\text{-Li}$, without isolation thereof, with phosphorous trichloride.

6. (Original) A process for the preparation of a compound of the formula $R_2P\text{-Li}$, comprising reacting a compound of formula $R_2P\text{-L}$ with lithium, where R is a substituted hydrocarbyl group, and L represents a leaving group.

7. (Original) The process of claim 6, performed at a temperature not exceeding 60°C .

8. (Original) The process of claim 6, where L is $\text{-NR}''_2$, $\text{-PR}''_2$ or $\text{-ZR}''$ where Z is O or S and R'' is $\text{C}_1\text{-C}_6$ alkyl, or, when L is $\text{-NR}''_2$ or $\text{-PR}''_2$, the two R'' moieties taken together form an optionally substituted $\text{C}_4\text{-C}_8$ alkylene chain.

9. (Original) The process of claim 6, where R is hydrocarbyl substituted with a polar moiety.

10. (Original) The process of claim 9, where R is aryl substituted with a polar moiety.

11. (Original) The process of claim 10, where R is a phenyl group that is ortho-substituted with a single polar moiety.

12. (Original) The process of claim 9, where the polar moiety is selected from the group consisting of halogen, haloalkoxy, alkoxy, amino, monoalkylamino, dialkylamino, aminoalkyl, monoalkyl-aminoalkyl, dialkyl-aminoalkyl, amido, monoalkylamido, dialkylamido, alkoxyalkoxy, alkylthio, alkylsulfonyl, dialkylamidodisulfonyl, alkylsulfonate, lithio-oxy, aryloxy, sulfonyl, and alkali metal sulfonate.

13. (Original) The process of claim 12, where the polar moiety is alkoxy or aryloxy.

14. (Original) The process of claim 13, where the polar moiety is methoxy or phenoxy.

15. (Original) A process for the preparation of a compound of the formula R^1_2P-Li , comprising reacting a compound of formula R^1_2P-L with lithium, where R^1 is a substituted hydrocarbyl group, and L represents a group of formula $-NR''_2$ where each group R'' represents an alkyl group or the groups R'' together constitute an alkylene chain.

16. (Original) A process for the preparation of a compound of the formula R_2P-Li , comprising:

reacting a compound of the formula R^1-Li , where R^1 represents an aryl group substituted by an alkoxy, aryloxy, dialkylamino, dialkylaminoalkyl, dialkylamido, alkoxyalkoxy, alkylthio, alkylsulfonyl, dialkylamidofulfonyl, alkylsulfonate or lithiated hydroxyl group;

with a compound of the formula Hal_2P-L , where L represents a leaving group and Hal represents a halogen atom;

in a solvent comprising an ether compound of the formula E^1-O-E^2 , where E^1 and E^2 independently represent a substituted alkyl group or a substituted aryl group, and having a boiling point of at least 40°C at atmospheric pressure.

17. (Original) The process of claim 16 further comprising:

reacting a compound of the formula R^1-H , where R^1 represents an aryl group substituted by an alkoxy, aryloxy, dialkylamino, dialkylaminoalkyl, dialkylamido, alkoxyalkoxy, alkylthio, alkylsulfonyl, dialkylamidofulfonyl, alkylsulfonate or lithiated hydroxyl group;

with a compound of the formula $Q-Li$, where Q represents an alkyl, cycloalkyl, aralkyl or aryl group;

in a solvent comprising an ether compound of the formula E^1-O-E^2 , where each of E^1 and E^2 independently represent a substituted alkyl group or a substituted aryl group, and having a boiling point of at least 40°C at atmospheric pressure;

to produce a resulting compound of the formula R^1-Li ; and

reacting said resulting compound with a compound of the formula Hal_2P-L , where L represents a group of formula $-NR''_2$ where each group R'' represents an alkyl group or the groups R'' together constitute an alkylene chain and Hal represents a halogen atom;

in a solvent comprising an ether compound of the formula E^1-O-E^2 , where E^1 and E^2 independently represent a substituted alkyl group or a substituted aryl group, and having a boiling point of at least 40°C at atmospheric pressure;

to produce a resulting compound of the formula R^1_2P-L ; and
reacting said resulting compound with lithium.

18. (Original) The process of claim 16, where Hal is chloro, bromo or iodo.

Cancel claims 19-29.